

IGAP FY 2014 IGAP UNMET NEEDS PROJECT NARRATIVE
October 1, 2013 to September 30, 2014

PROJECT/BUDGET PERIOD: October 1, 2013 to September 30, 2014

BASELINE ASSESSMENT OF COOK INLET TRIBES
SUBSISTENCE CONSUMPTION: Phase II
FISH TISSUE ANALYSIS

Seldovia Village Tribe, IRA

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PROJECT SUMMARY:

This Unmet Needs Project will complete the second phase of a two-part assessment of the potential contamination of fish species for the communities of Seldovia, Port Graham, Nanwalek, and Tyonek, Alaska. The initial analysis of the data collected and compiled from questionnaires (Phase 1) reveals the average fish consumption rate of Seldovia, Port Graham, Nanwalek and Tyonek interviewed tribal members is approximately *five times greater* than the average consumption rate estimated for the general U.S. population by EPA in calculating human health based ambient water quality criteria and standards for toxins and approximately *fifteen times* greater than the rate used by Alaska Department of Environmental Conservation. To further enhance this assessment fish tissue monitoring data needs to be collected to determine tribal members' actual exposure to toxic pollutants. All these villages have a vested interest in this information since it directly relates to the health of their community members. Therefore, SVT is seeking Unmet Needs funding to carry out the second phase of the proposed project (i.e. conduct sampling for contaminants).

PROJECT BACKGROUND:

The Seldovia Village Tribe (SVT) recently completed Phase 1 of the Cook Inlet Subsistence Consumption Assessment Project of the Seldovia, Port Graham, Nanwalek, and Tyonek Tribes of Cook Inlet, Alaska, which was funded under the FY 2012 Indian General Assistance Program (IGAP). This request is for funds to complete Phase 2 of the project.

The initial catalyst of this project was the potential contamination of fish species, especially salmon, that are a vital part of the Alaska Native diet for residents of Seldovia, Port Graham, Nanwalek, and Tyonek. As mentioned in the previous request for funds, concern exists among the Cook Inlet villages about subsistence foods. There are several reasons why such concern exists. As most of us know, subsistence foods are a vital part of lifestyle and sustenance in rural Cook Inlet villages. Issues previously identified include:

- Per capita fish consumption rates did not adequately reflect Alaska Native consumption.
- Parts of the fish consumed and how the fish was prepared for consumption.

- Cook Inlet on and offshore effects to the environment and the contamination to aquatic life.

Between November 2011 and September 2012, SVT staff undertook a subsistence consumption assessment of Cook Inlet tribal members. The assessment was interview-based and examined subsistence food consumption rates and patterns of Alaska Natives residing in Seldovia, Port Graham, Nanwalek, and Tyonek. Community members of these villages frequently consume and harvest traditional foods from the waters of Cook Inlet. This is the first assessment to collect fish consumption rates and patterns of Alaska Natives living in Cook Inlet in regards to fish preparation methods, cooking methods, breast feeding, and elementary age children.

The initial analysis of the data collected from the surveys reveals the average fish consumption rate of Seldovia, Port Graham, Nanwalek and Tyonek surveyed tribal members is approximately *five times greater* that the average consumption rate estimated by EPA and *fifteen times* greater than the rate used by ADEC in calculating human health based ambient water quality criteria and standards for toxins (Powell 2011).

By conducting fish tissue monitoring, levels of toxins and contaminants present in priority fish species (harvested within Cook Inlet) can be determined. These data can subsequently be combined with current, known rates of fish consumption for Cook Inlet Tribal members to determine their risk of exposure. Whole-body and Composite samples will be collected for sockeye salmon since the 2012 fish consumption assessment showed sockeye salmon was one of the top priority fish species and that tribal members frequently consume several fish parts in addition to the fillet of salmon species. The proposed methodology/sampling protocol is based upon: consultation with ADEC staff on fish tissue contaminants and sampling protocols, an obtainable and reasonable number of fish samples that can be collected and analyzed by ADEC personnel, and shared priorities of Cook Inlet tribes and ADEC.

PROJECT GOALS AND OBJECTIVES:

We are looking to protect the health of tribal members within the Cook Inlet area by identifying, and determining levels of, contaminants present in priority fish species eaten by tribal members as identified in the 2012 Subsistence Consumption Assessment. Tribal members will eventually use these data to determine “safe limits” for consumption of these resources. “Safe limits” for consumption will be ascertained based upon the amount of fish consumed, species consumed, age of tribal members (children vs. adult), and if the tribal member is pregnant or nursing. Through collaboration with the Alaska Department of Environmental Conservation (ADEC), Division of Environmental Health levels of contaminants will be determined for whole and composite specimens of sockeye salmon. The contaminants were chosen not only because they represent the contaminants most likely to be present in the fish consumed by Cook Inlet tribes, but also because ADEC is willing to conduct analyses of these contaminants at no cost to the project.

It is proposed to focus solely on sockeye salmon for several reasons;

- Sockeye salmon was one of the top priority fish species for Cook Inlet Tribal members
- ADEC reports that little data exists regarding contaminant levels of sockeye salmon within Cook Inlet
- ADEC has committed to pay for shipping and analysis of fish tissue samples from this species

In this proposed study, SVT will:

- Build Capacity for Cook Inlet Tribes to conduct fish tissue sampling
- Collect current baseline contaminant data for Sockeye Salmon
- Use this data to assess the risks to Tribal public health and the environment

PROJECT DESCRIPTION:

The proposed project and corresponding budget is for a period of 12 months (October 1, 2013 through September 30, 2014). The majority of the effort will be achieved with SVT Environmental Department staff although there will be close collaboration with IGAP EPA/Environmental staff from the villages of Port Graham, Nanwalek, and Tyonek. SVT's Environmental Assistant will serve as the Project Manager (part-time; Approximately 23.5 hours per week) and will organize and coordinate all project activities (under the supervision of SVT's Environmental Coordinator). Project methodology and activities have been discussed with the ADEC staff and is partially based on the fish contaminant study the Columbia River Inter-Tribal Fish Commission undertook in the 1990s (US EPA 2002).

In Q1, the Project Manager will arrange and lead initial meetings through teleconference calls and e-mail correspondence with project partners to discuss the project and the timing of sample collection. PM will develop and distribute sampler recruitment, contract, and forms. A draft QAPP will be developed in Q1, and approved by all project partners at the end of Q2.

In Q2, two residents will be selected as Contractual Samplers from each village and contracted by SVT. The duties will include assistance with the collection permits in their respective village, participating in fish sample collection training, collection of local fish samples, and preparing and shipping samples to the Environmental Health Laboratory in Anchorage. In Q2, ADEC staff will train the SVT Environmental staff in proper collection techniques and storage protocol. Collection permits for contractual and project staff will be obtained in Q2. The PM will make sure by the end of Q2 that all supplies and travel arrangements are in place. SVT's Project Manager will meet with each participating village (Port Graham, Nanwalek, and Tyonek) to train project staff on proper collection techniques, storage protocol, and chain of custody procedures via webinar and in the field.

In Q3 and Q4, the SVT Environmental staff will coordinate with Contractual Samplers regarding fish specimen collections. SVT staff will travel to each village during collection events to act as quality assurance monitors and conduct training. A total of 36 whole body specimens of sockeye salmon will be collected from fishing locations around each of the four participating villages. 2 salmon from each village will be used as whole body specimens with 1 salmon from each village being used in a composite sample of eggs, organs, and tissue. For a total of 5 tests to be run on these 36 salmon.

Collection and shipping of fish samples from all four villages will take place in Q3 and Q4. Documentation forms will be compiled from each of the sampling events. Samples will be shipped, and handled, following established chain of custody procedures, to the Environmental Health Laboratory for analysis of these contaminants: PCBs, chlorinated phenolics, flame-retardant PBBEs, and metals (mercury, arsenic, cadmium, copper, lead, and selenium). It is anticipated that samples will be shipped from each individual village to insure they arrive in a timely manner.

The PM will review related scientific articles and reports to make sure of consistency. Once lab results are received the PM will compile the results into a Final Project Report which will be shared with all the project partners as well as EPA. All statistical analysis will be consistent with the approved QAPP. A final teleconference call will be held to present findings to project partners (EPA, ANTHC, ADEC, and Villages) via *GoToMeeting* or something similar. Throughout the entire project, frequent communication will be maintained with all project partners, by phone and/or e-mail, to insure project progress and continuity.

MANAGEMENT AND FINANCIAL CAPABILITIES:

SVT is a federally recognized Indian Tribe that serves its members and the communities of Kachemak Bay, Alaska. SVT works to preserve our culture, be leaders in community health, promote business enterprise, and foster educational opportunities. The Tribe has various community programs that help the Tribal members and the community as a whole. Some of these programs include, elderly and low-income housing, food bank, substance abuse counseling, youth after-school programs, EMS/Barbara Heights Volunteer Fire Department, and the SVT Health and Wellness Centers based in Homer, Anchor Point and Seldovia.

The Tribe has an elected nine member Tribal Council, the President/CEO Crystal Collier has worked for the tribe for the past twenty-five years. At the direction of the council, Ms. Collier is responsible for the day-to-day operations and management of the Tribe. The Federal Governments' confidence in SVT's administration is illustrated by the numerous and large amounts of federal appropriations to SVT and are a testament to her professional competence and integrity.

The Tribe administers many federal grants and contracts, which are generally of a cost-reimbursement type. Grants and contracts include provisions for advances and billings for costs on a reimbursable basis. Revenues and receivables are generally recorded when reimbursable expenses are incurred to the extent of the grant or contract amount. Indirect expenses, which benefit all programs, are allocated to the various funds by contractual agreement. SVT submits timely quarterly, semi-annual, and annual reports for all of the awards. We are currently up to date with all grant reporting and are or have met required program outputs and outcomes.

SVT employs a full-time Chief Financial Officer who oversees all SVT accounting staff. SVT has an established history of successfully managing financial assets including funds from federal, state, and private sources. SVT has appropriate financial management in accordance with the OMB A-133 single audit act and meets with the 24 CFR Part 85 and 24 CFR part 1003 requirements. These standards are met through:

Financial reporting- SVT provides timely, accurate reports in accordance with grant source requirements. We provide complete disclosure of the financial results of the program activities.

Accounting records- SVT accounting records maintain files that record awards, obligations, unobligated balances, assets, liabilities, expenditures and income, additionally, our records are adequate to identify the source and application of funds.

Internal Control- Our financial policies and procedures provide effective control and accountability for all grants, cash, real and personal property, and other assets. These policies ensure that funds or property are used solely for the authorized purpose.

Budget Control- SVT financial systems compare projected budgeted amounts to actual expenditures. Financial information is related to the performance data.

Allowable Cost – Our financial system is inclusive of OMB cost principles, agency program regulations, and the terms of the funding source in determining the reasonableness, allowability, and allocability of costs.

Source Documentation- All accounting records are supported by source documentation such as, cancelled checks, paid bills, attendance records, contracts or award documents.

Cash Management – Procedures are in place to ensure timely cash management for advance drawdowns and subsequent payments. Our financial system supports accounting personnel to prepare complete and accurate cash transactions reports to the funding agency.

The SVT financial system operates on an accrual accounting basis and is fully computerized. The SVT Council receives and reviews monthly financial statements. Annual audits are performed by an independent source, most recently by Newhouse and Vogler, CPA, and are submitted each June 30 to the Federal Audit Clearinghouse. The annual SVT audits reveal SVT's strong dedication and due diligence with no audit findings related to financial management

ACCOMPLISHMENTS:

SVT has received IGAP funds for the past eleven years and has achieved several milestones which include: the development of important living documents such as the Hazardous Waste Management Plan (HWMP), Tribal Environmental Management Plan (TEMP), Integrated Resource Management Plan (IRMP), Action Plans for both the TEMP and IRMP, Tribal Environmental Agreement (TEA); Quality Assurance Project Plans (QAPPs) for baseline Water Quality Assessments in local rivers and Seldovia Bay and baseline Subsistence Consumption Assessments; and implementation of recycling programs including e-waste and aluminum can/plastic collection, and the planning for air quality (PM-10) monitoring in our service area.

Current Year:

SVT continues to work to build our capacity for protection of our environment and environmental health. This past year we have developed new projects including:

- Electronic waste recycling
- Sorting, collecting, and tracking recyclables from designated community bins
- Planning and financial support for air quality monitoring
- A baseline assessment of subsistence consumption patterns of tribal members

Subsistence Food Contamination

The SVT Environmental Office is completing a baseline assessment of subsistence consumption patterns of tribal members, and has extended this assessment in the communities of Port Graham, Nanwalek, and Tyonek through an EPA IGAP Special Project. We are very excited about this work with our neighboring villages.

Numerous forms and documents have been researched and developed to conduct interviews with Tribal members about their subsistence consumption patterns, such as contact log forms, interviewer checklist forms, letters to Tribal members about the assessment, consent forms, confidentiality statements, and questionnaire forms. Methodologies for conducting the interviews were refined, interview supplies such as food models and tape recorders were purchased, and Quality Assurance Project Plans (QAPP) were approved. Environmental office staff have completed the Seldovia interviews, and are in process of conducting the interviews in other villages. We will complete this first phase of the project by September 2012. The second phase of this project will be a baseline assessment of contaminants in subsistence foods beginning in 2013.

Environmental Outreach

Our outreach efforts have been a positive experience with the inclusion of several presentations including:

- An electronic waste presentation at the Susan B. English school
- An air quality management presentation for a state-wide training
- Organization of the annual Sea Day for students K-12
- Participation and presentation at the Native Village of Afognak's Dig Afognak Adventure E.A.R.T.H. (Earth Awareness-Renewing Traditions and Heritage) Camp
- Participation and presentation at the Tyonek Environment & Culture Camp
- Weekly distribution of educational flyers about recycling and burn box etiquette at the landfill in collaboration with the Kenai Peninsula Borough
- Quarterly newsletter articles sent to Tribal members

Solid Waste Management

In 2011 SVT was awarded a Coco Cola Keep America Beautiful (KAB) grant. Five recycling bins have been placed in our community to assist in the recycling of aluminum cans and #1 plastics or PETE (Polyethylene Terephthalate) and #2 plastics or HDPE (High Density Polyethylene). To date 157.46 pounds of aluminum cans and 122.24 pounds of plastic items have been collected and kept out of our landfill!

An electronic waste recycling effort was conducted for the first time in Seldovia, April 16, 2011. We collected 55 pounds of e-waste the first year with 250 pounds the second and in our third year we collected almost 600 pounds and we look forward to next spring when we hope to collect more e-waste and have better results to report as we progress.

SVT was awarded funds in 2011 from the United States Department of Agriculture (USDA) Rural Development Utilities Program and Solid Waste Management grant to assess the Jakolof Bay Road unmanaged dumpsite. Items of completion included a community meeting and presentation, development of educational materials for the community meeting, and GPS coordinates and photos. The assessment was completed in 2012.

Air Quality

This summer was our second summer working with the Alaska Native Tribal Health Consortium (ANTHC), Division of Environmental Health and Engineering on air quality

monitoring in Seldovia Village. A second mini-grant with ANTHC has been awarded for our air-monitoring project, with air-monitoring equipment on loan from ANTHC and ADEC.

Invasives

SVT Environmental staff continue to build knowledge and skills in European Green Crab monitoring in surrounding waters. Tags and traps provided by the Kachemak Bay Research Reserve (KBBR) were placed at Look Out Point and Seldovia harbor and data sheets were sent to the Kachemak Bay Research Reserve (KBBR) in Homer, Alaska. European Green Crabs have not been detected in the local waters.

SVT has worked closely with the Homer Soil and Water Conservation District (HSWCD) to build knowledge and skills in invasive species around Seldovia, both within and outside of the city limits. Four types of invasive plants have been identified within our community, which include: Orange Hawkweed, Common Tansy, Butter and Eggs and Reed Canary Grass. The Narrowleaf Hawksbeard is a new invasive species that was identified for the first time in the Seldovia area in 2011.

Network Node

We have continued our work with the Network Node, previous water quality data submission is a work in progress, with 2005 through 2010 data having been submitted. We are currently working on our fourth EPA National Environmental Information Exchange Network grant that will enable SVT to add Geospatial data to our spatial viewer and will allow Cook Inletkeeper and the Kenai Watershed Forum to share their water quality data with EPA and SVT through the network node. We received another Network Exchange grant to help us get our AQS data from our air monitoring project to be added to the node and spatial viewer to be shared with EPA.

Historical Accomplishments

SVT has received IGAP funds since 2000. We continue to develop our capabilities, and to build our Tribal Environmental Program capacities. Over the years, we have accomplished many projects that are helping to build a foundation for our program. We applied for and received a Tribal Hazardous Waste Management Grant and an Environmental Information Exchange Network Readiness grant in 2005 we were successful in receiving these grants again in 2007, 2009, 2011 and 2012. The Hazardous Waste Management Plan grant allowed us to develop our SVT Hazardous Waste Management Plan and a Green Star program. SVT has worked with the Kenai Peninsula Borough to help educate users about the burn box, recycling and the landfill. June through September 3rd 2011, we created, and distributed to patrons of the landfill, educational flyers about recycling as well as helped the landfill attendants clean up windblown trash and watch for bears inside the landfill gates.

SVT has been diligent in our work to build core environmental program capabilities. Every two years, we assess Tribal members' environmental interests and concerns to ensure the Environmental Office is on the right track and are responsive to community members. Once the community concerns have been identified, we research and respond to those environmental issues. We continue to research technical resources and to seek out funding opportunities to implement plans and address issues such as; subsistence resources, wetlands, and abandoned dump, mine, and logging sites.

We have also worked to improve our communication between SVT, Tribal members, and our community through education and outreach events at the local school with the students during Sea Days and in the summer with our Culture Camp. Articles to the SVT tribal newsletter are submitted on a quarterly basis, the newsletter is distributed to all Tribal members here in Alaska and in the lower 48 states. The Environmental team participates in IGAP conference calls and regional meetings. We have established, and continue to foster, relationships with appropriate departments from the Susan B. English school, the Kenai Peninsula Borough, Kachemak Bay Research Reserve, Cook Inletkeeper, Pratt Museum, USFWS, ADF&G, City of Seldovia, Center for Alaska Coastal Studies, The Alaska Sea Otter and Steller Sea Lion Commission and other tribes.

SVT's Environmental Coordinator has been with the Tribe since 2003, maintains the relationships, and continues collaboration with other organizations, the continuity of these partnerships is apparent as we continue to develop our capacity within the Environmental Office. SVT has met all required performance standards set within our work plan; we have submitted all required reports to the appropriate agency personnel in a timely manner.

Since 2004, the Environmental Coordinator has provided oversight and management assistance in other projects that SVT's Environmental Office has conducted. In 2005, we received the first of four EPA grants for the creation of a Network Node. Later grant awards have allowed us to improve the network node with a spatial viewer, and to continue with the submission of the water quality data to EPA. To our knowledge SVT is the only tribe in Alaska with a functional network node, and we are exceptionally proud of this achievement. In 2006, we were able to secure money from USFWS for a Silver Salmon Restoration Project. This project is currently moving forward with new reports and cost estimates to be received by November. SVT has received several BIA awards, most recently in October 2012 for the Tribal Marine Science Workshop.

Our Tribal Environmental Management Plan (TEMP) and Integrated Resource Management Plan (IRMP) were approved by the Council and continue to be utilized and updated as needed. We conduct community environmental and natural resource assessments to ensure top priority issues are addressed, and also to assist us in updating our TEMP and IRMP Action Plans as responsive documents. In the past, we have done presentations at Susan B. English School and for the Council on various subjects such as King Salmon, Bidarkis biology, life history, and macro invertebrates. From these outreach activities we are able to obtain information we then utilize for our program, our people, as well as getting the youth involved and interested in the environment and their heritage.

The Tribe is active in various marine mammal councils and research projects that help collect regional and statewide data and facilitate the development of proactive management and regulation. Findings such as these may be incorporated into the Tribe's Tribal Environmental Management Plan (TEMP), Integrated Resource Management Plan (IRMP), and Quality Assurance Project Plan (QAPP) to insure that these "living" documents are improved on and utilized fully. Information sharing/streaming with EPA will be priority through our FY 2004 Tribal Environmental Agreement (TEA) and with the EPA Environmental Exchange Network Node.

Since 2000, we have learned a lot about environmental issues, and we are proud of our efforts to educate the community about the importance of a healthy environment. However, funding is a serious limitation, and we still have a long way to go toward building capacity to actually address and resolve our environmental and public health priorities. Although we have made progress, so much is still needed such as in building our administrative, communication, technical, and solid and hazardous waste management capabilities. We have not yet begun developing legal or enforcement and compliance capabilities.

PERFORMANCE, REPORTING, AND ROLES

A. PERFORMANCE AND REPORTING

The Seldovia Village Tribe will conduct IGAP work in accordance with the approved workplan and budget, terms and conditions of the agreement, and applicable rules and regulations. The tribe will submit regular and timely drawdown requests to EPA, consistent with payroll and other approved expenditures.

Within 30 days of the end of each fiscal quarter, the tribe will submit a Quarterly Performance Report that:

- details specific accomplishments toward completion of each workplan task;
- discusses the effectiveness of work performed under each workplan component;
- identifies any existing or potential problems that could impact or delay completion of any task, output, or deliverable;
- describes current financial status and any significant differences between estimated costs and actual expenses;
- suggests workplan and budget changes and/or schedules for improvement as necessary; and
- includes all deliverable work products for the quarter.

Within 30 days of the end of each fiscal year (no later than October 30th), the tribe will submit an annual Disadvantaged Business Enterprise (DBE/MBE/WBE) Report.

The tribe and EPA will monitor program progress. If sufficient progress is not being made under the workplan, the tribe and EPA will negotiate a resolution that addresses the issues. Reporting and joint performance evaluation will help ensure that the grant is being administered properly, and that work conducted is in accordance with the approved workplan and budget.

B. EPA ROLES AND RESPONSIBILITIES

EPA will have no substantial involvement in the accomplishment of workplan tasks. EPA will monitor progress and provide technical assistance to the tribe as necessary and able to ensure project completion.

REFERENCES:

Powell, Jim. 2011. Water Quality Standards. Department of Environmental Conservation. Division of Water. Available online at <http://www.dec.state.ak.us/water/wqsar/trireview/index.htm>. [US EPA] US Environmental

Protection Agency. 2002. Columbia River Basin fish contaminant survey 1996-1998. EPA 910-R-02-006. Seattle, Washington.